

Roles in IT

Markus Karileet

Helmes

650+
experts

32m
annual turnover

28+
years

Tallinn
Estonia (HQ)

Minsk
Belarus

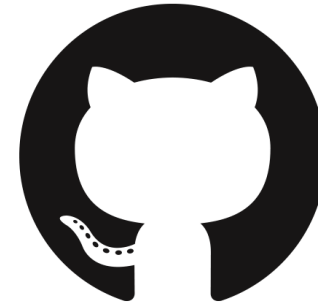
Markus Karileet

- 2006 – 2013
 - Eesti Energia, software development, testing
 - Java, PL/SQL
 - Support services area architecture
 - PHP, Java
- 2013 – 2016
 - Tieto Estonia AS, software architecture, development
 - Java
- 2016 – ...
 - Helmes AS, solutions architecture
 - Java, PHP, Angular, Python, Machine Learning

Helmes

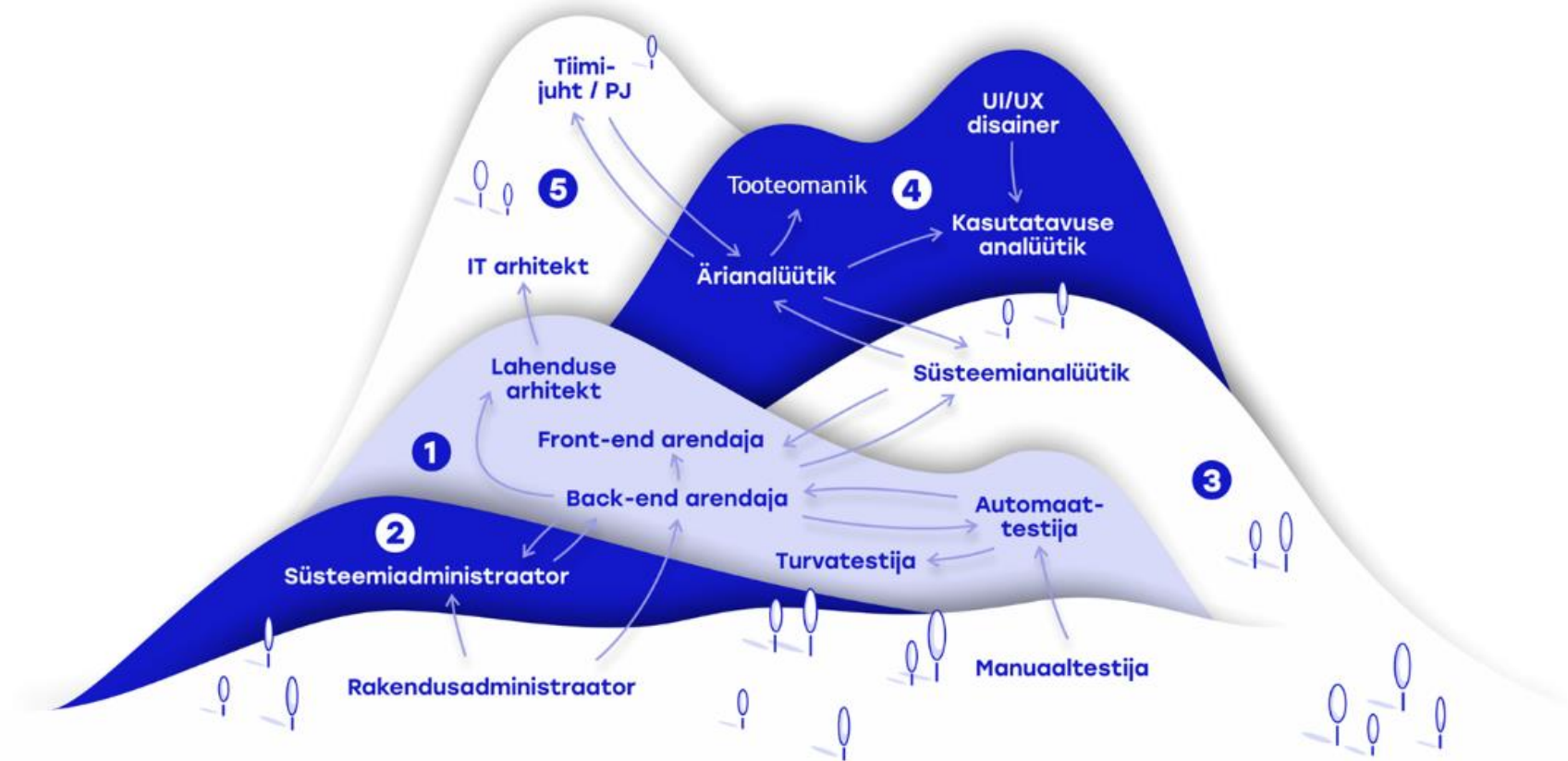


@MarkusKarileet



Shmarkus





Helmes

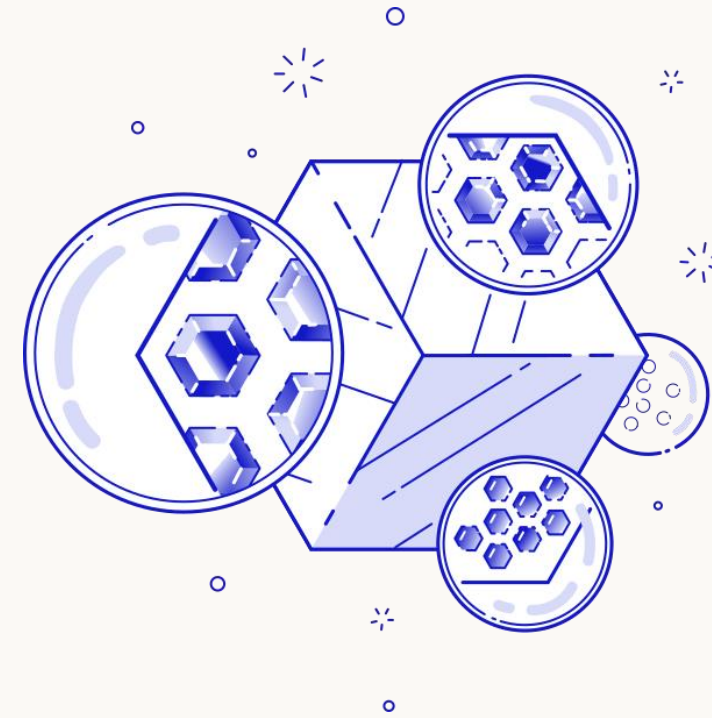
Front-, backend developer

Front-end developer

- UI frameworks (Angular, React, Bower, Gulp, Ionic)
- Slicing frontend into components
- Responsive design
- Search Engine Optimisation (SEO)
- Event-based thinking
- NodeJS

Backend developer

- Algorithms
- Multithreading
- Data model
- Data consistency
- Data validation
- Object Relational Mapping (ORM) frameworks
- Logging
- Security
- Apache Tomcat, Oracle Weblogic, Apache HTTPD, IIS etc.



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Automation-, penetration tester

Automation tester

- Manual tester background
- Automation tools (Selenium, Cucumber)
- Basic Python/Java/JavaScript

Penetration tester

- Automation tester background
- Good software/hardware know-how (server + application)
- Good understanding of network traffic
- Application business logic analysis
- Penetration tools (OWASP ZAP, Burpsuite, Kali Linux)
- Basic Python/Java/JavaScript

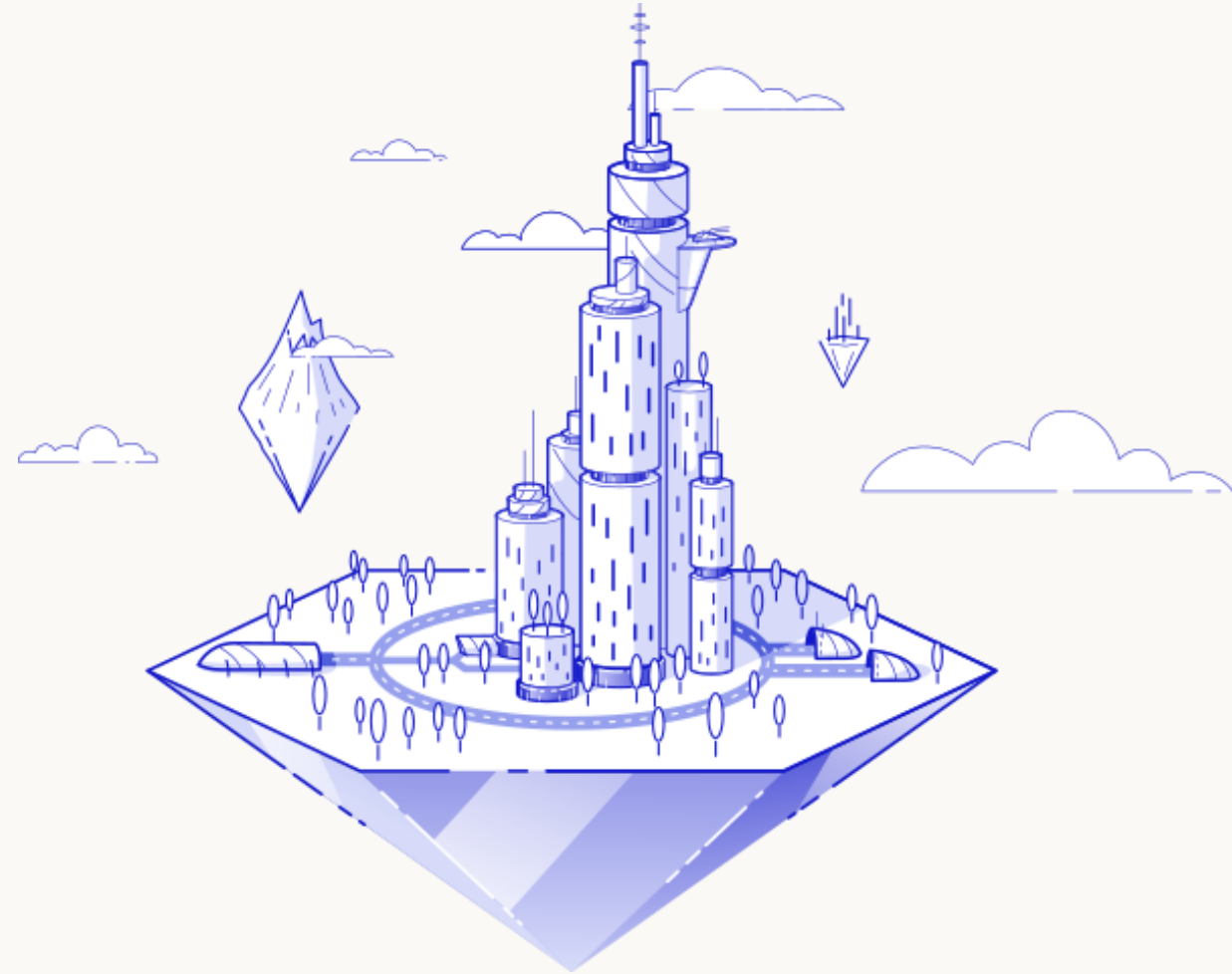


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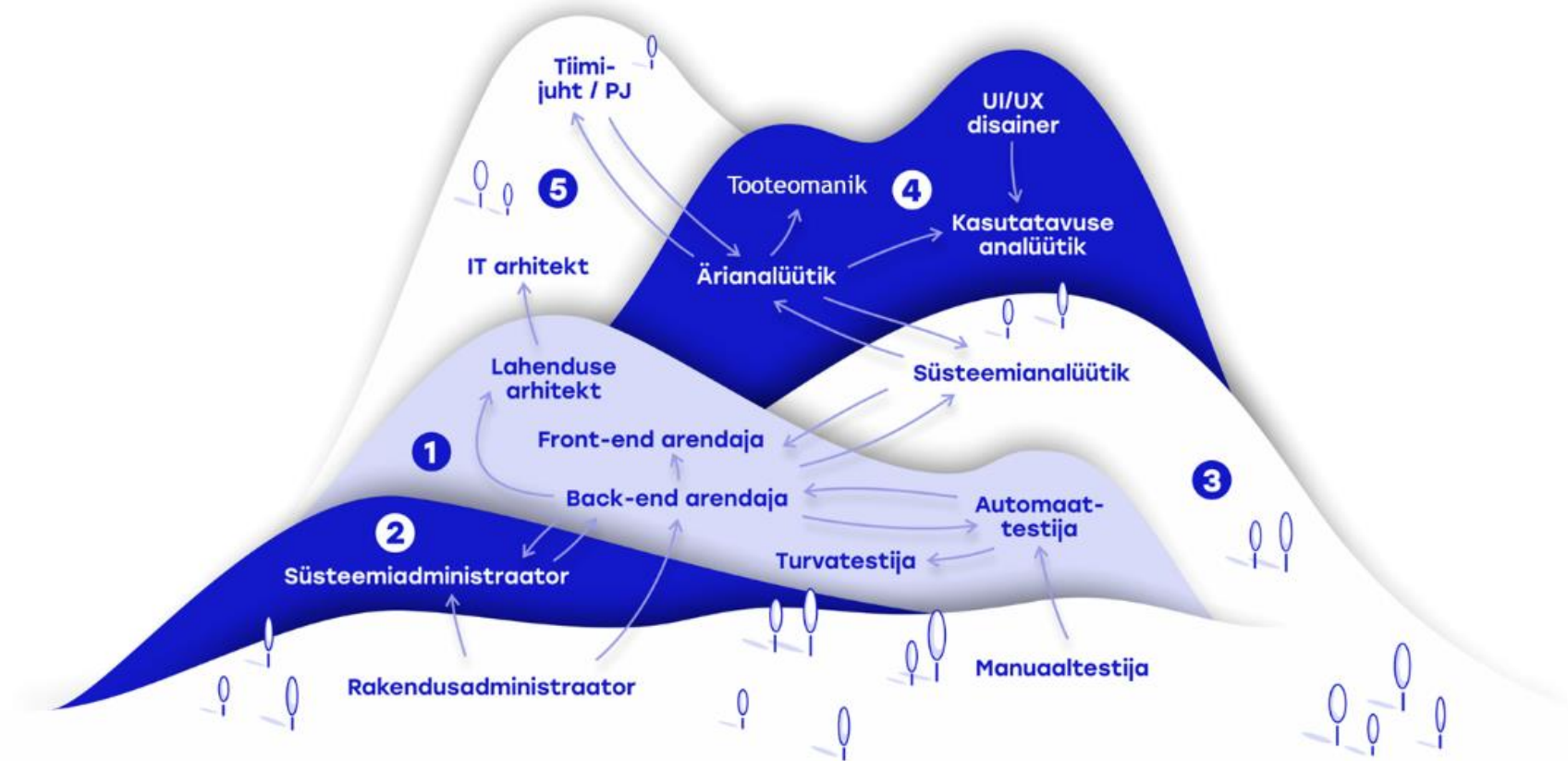
Solution architect

- Identifying system components
- Dependencies between components
- Platform selection
- Responsible for the security
- Planning and defining APIs
- Planning complex realizations
- Responsible for non-functional requirements

Responsible for how the system is built



Helmes



- 1 Writing code
- 2 Configuring APP/server
- 3 Understanding functional mechanisms
- 4 Understanding business use cases
- 5 Understanding business

Helmes

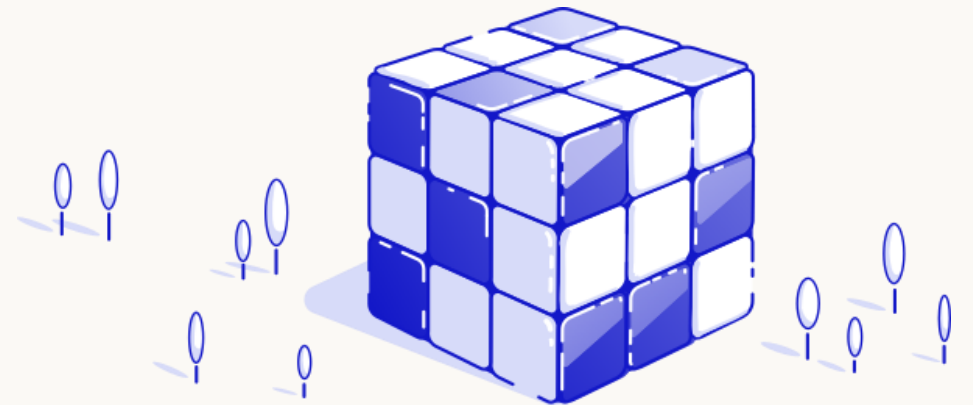
Systems administrator

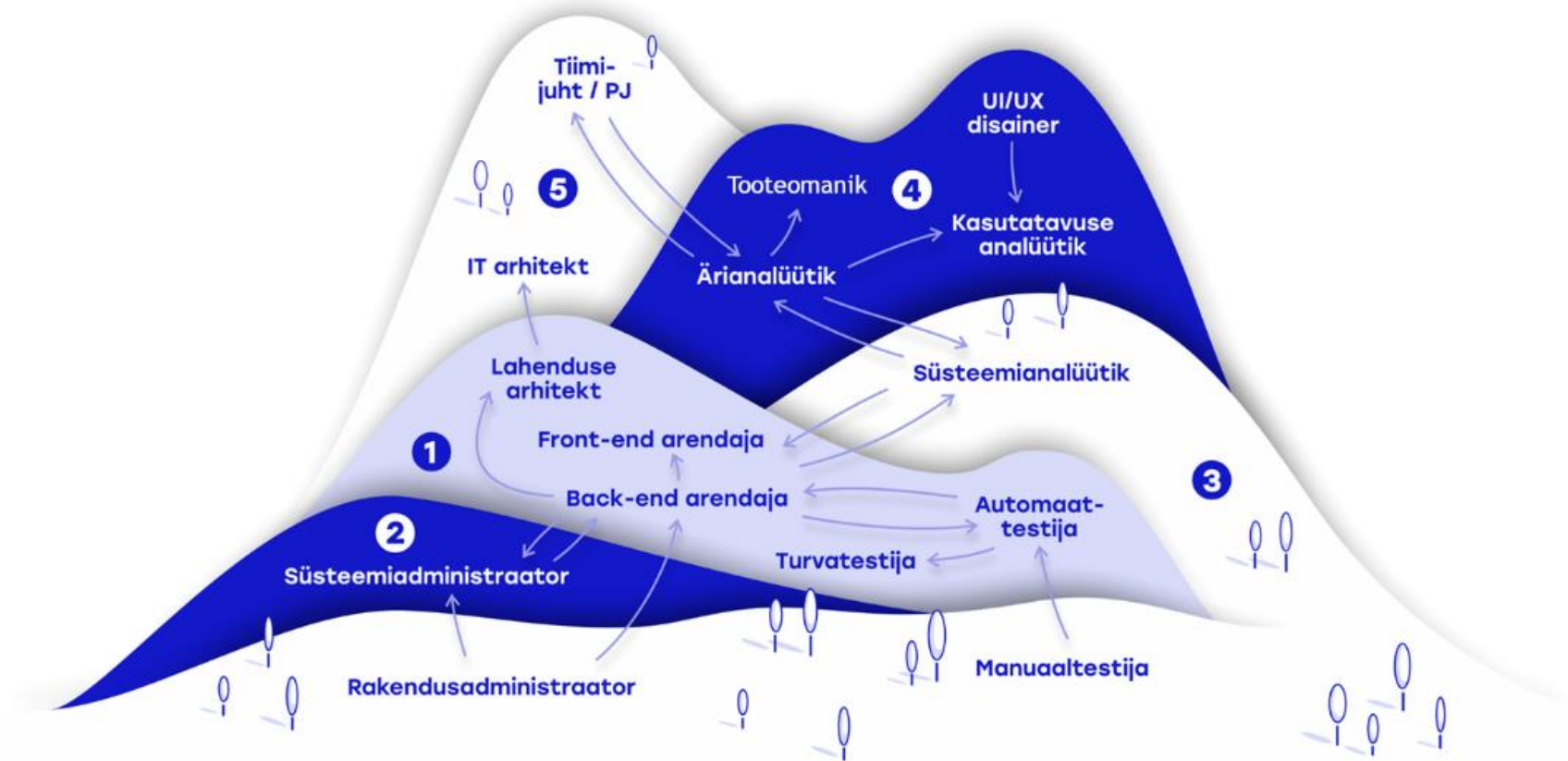
- Server monitoring
- Monitoring application logs
- Server updates
- Backup copies
- Server user management
- Linux/Windows server administration

Responsible for continuous availability of the application

Cloud-based infrastructure is affecting this role

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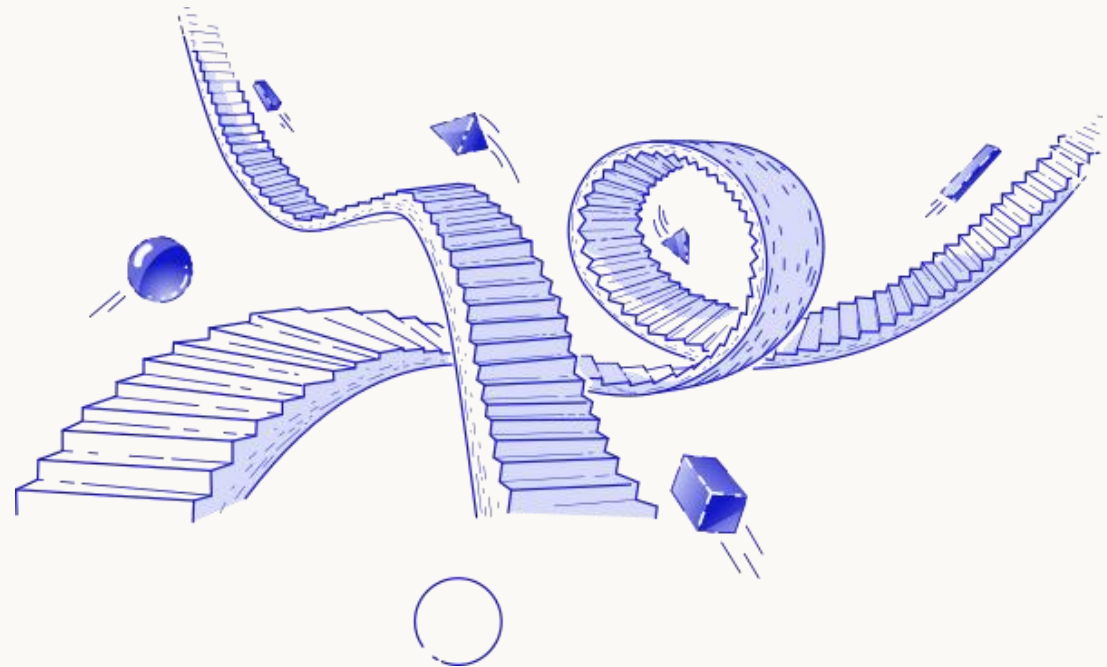
- 1 Writing code
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Application administrator

- Application user management
- Application super-user
- Application second level support

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Manual tester

- Understanding the application business logic
- Testing application functional requirements
- Regression testing

Responsible for quality control

For some reason (manual tester) has a bad reputation

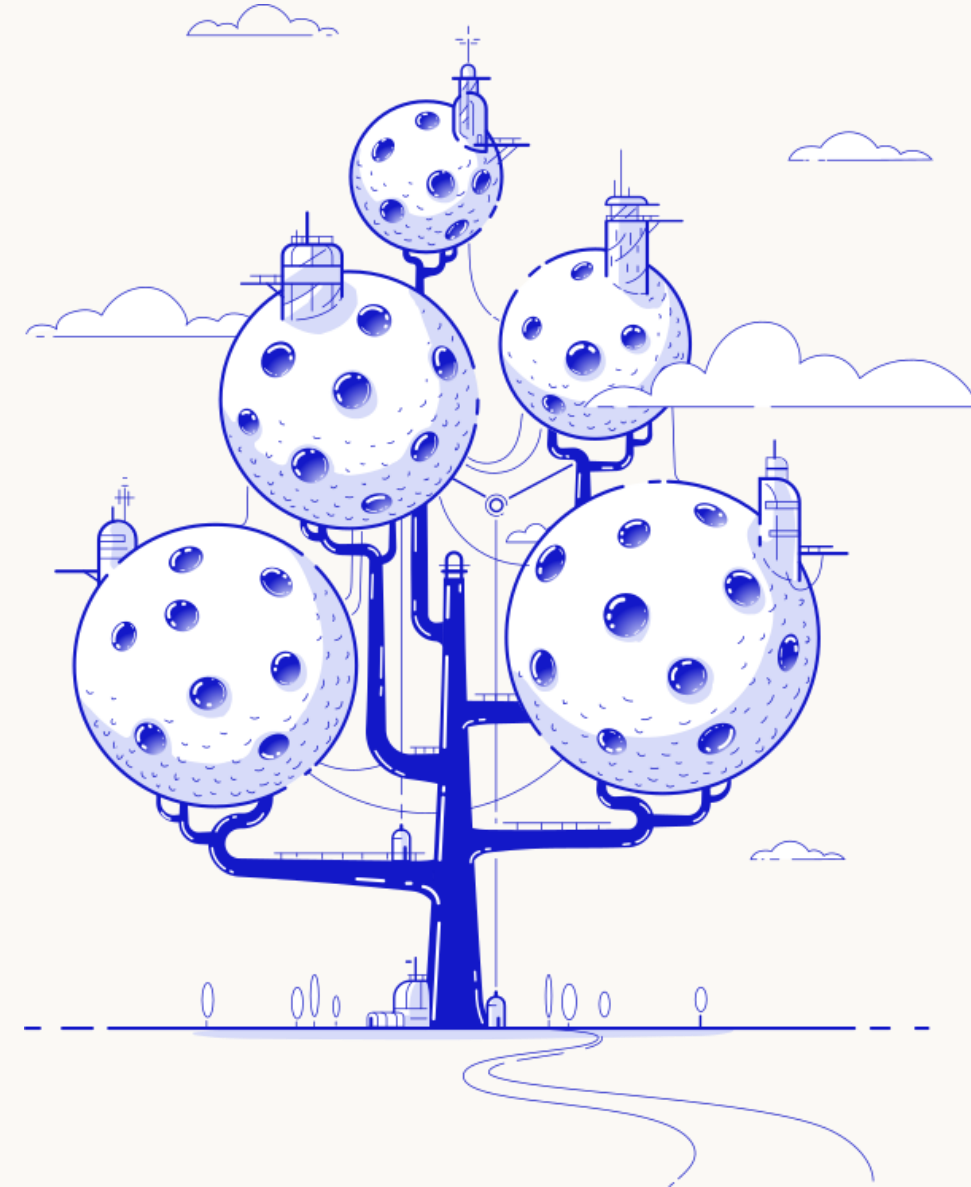
Helmes

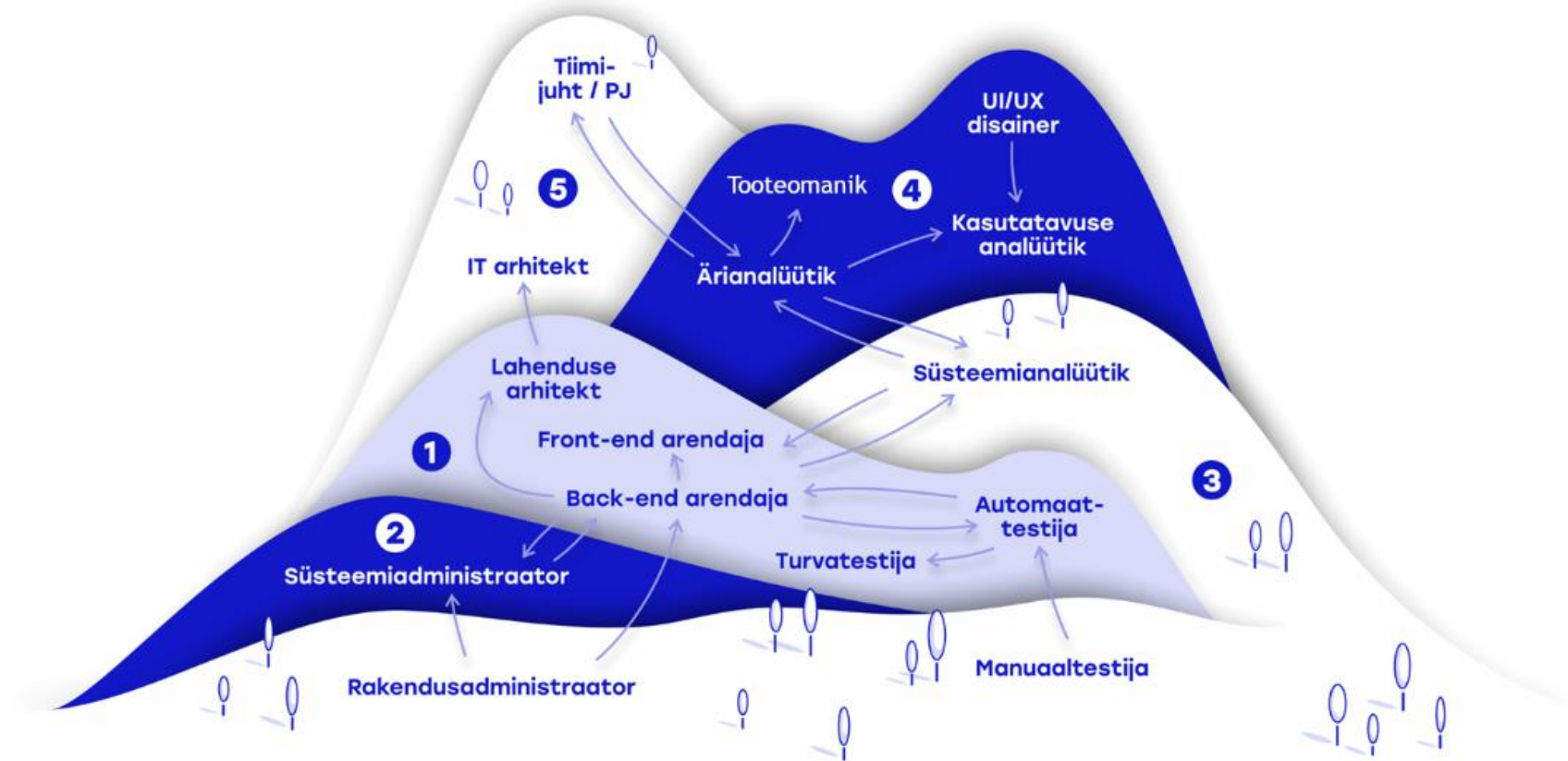
System analyst

- Describing APIs
- Defining functional requirements (use case/user story)
- Refining functional requirements

Responsible for how the system behaves

Helmes





1 Writing code

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Business-, usability analyst, UI/UX designer

Business analyst

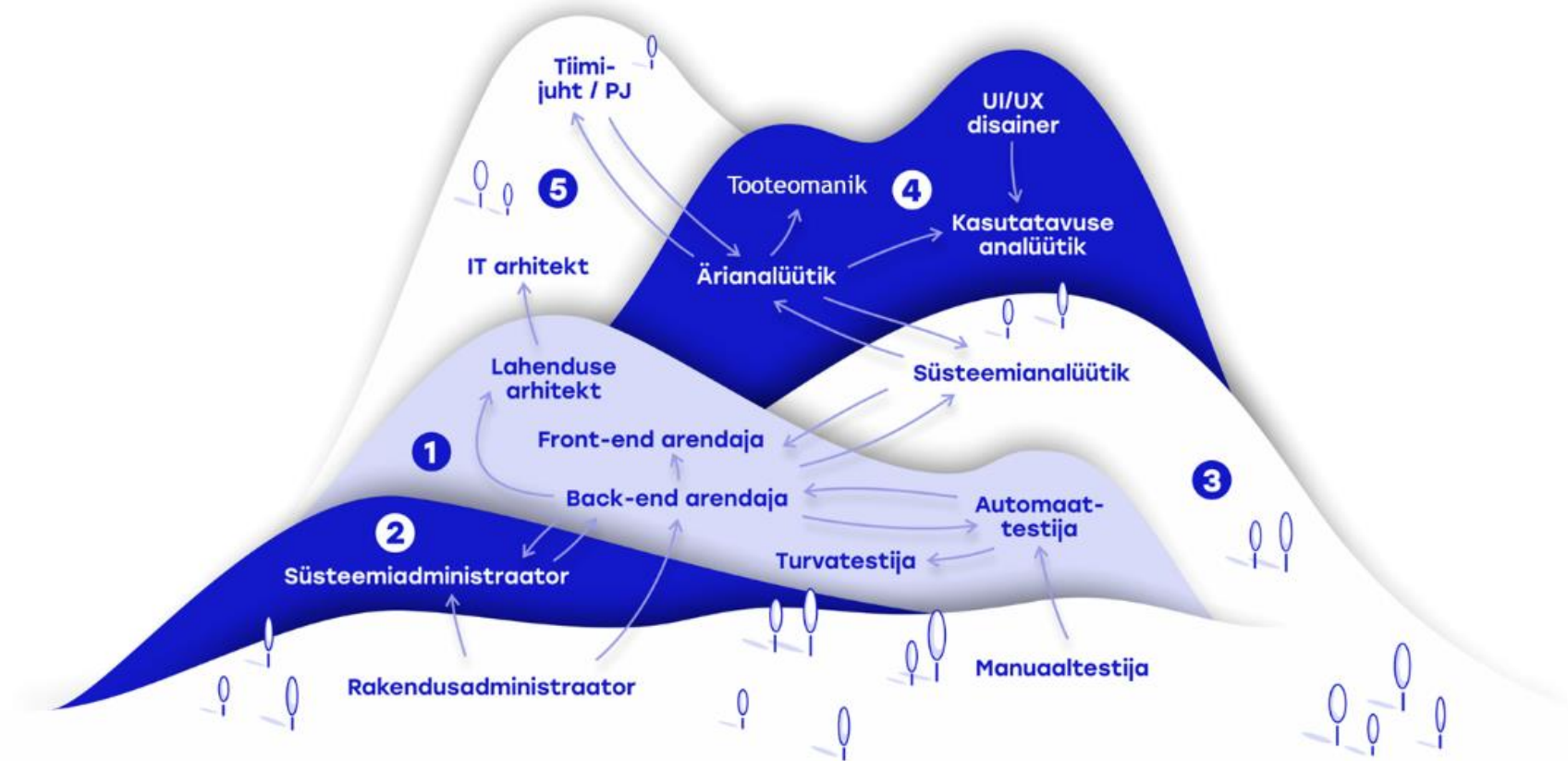
- Describing business process
- Defining business requirements
- Wireframe for application

Usability analyst

- Analyse the usability of the design
- Usability guidelines
- Adjust business processes to be more user-friendly

UI/UX designer

- Creating the design
- Design user experience
- Photoshop design
- Photoshop slicing to HTML



- 1** Writing code
- 2** Configuring APP/server
- 3** Understanding functional mechanisms
- 4** Understanding business use cases
- 5** Understanding business

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IT architect

- Overview of the companies IT systems
- Manage the IT policy (frameworks)
- Defining the non-functional requirements
- Manage the system integration (Service Oriented Architecture, Microservices)
- Network setup and security levels

Responsible for what kind of systems will the company use and how they communicate with each-other

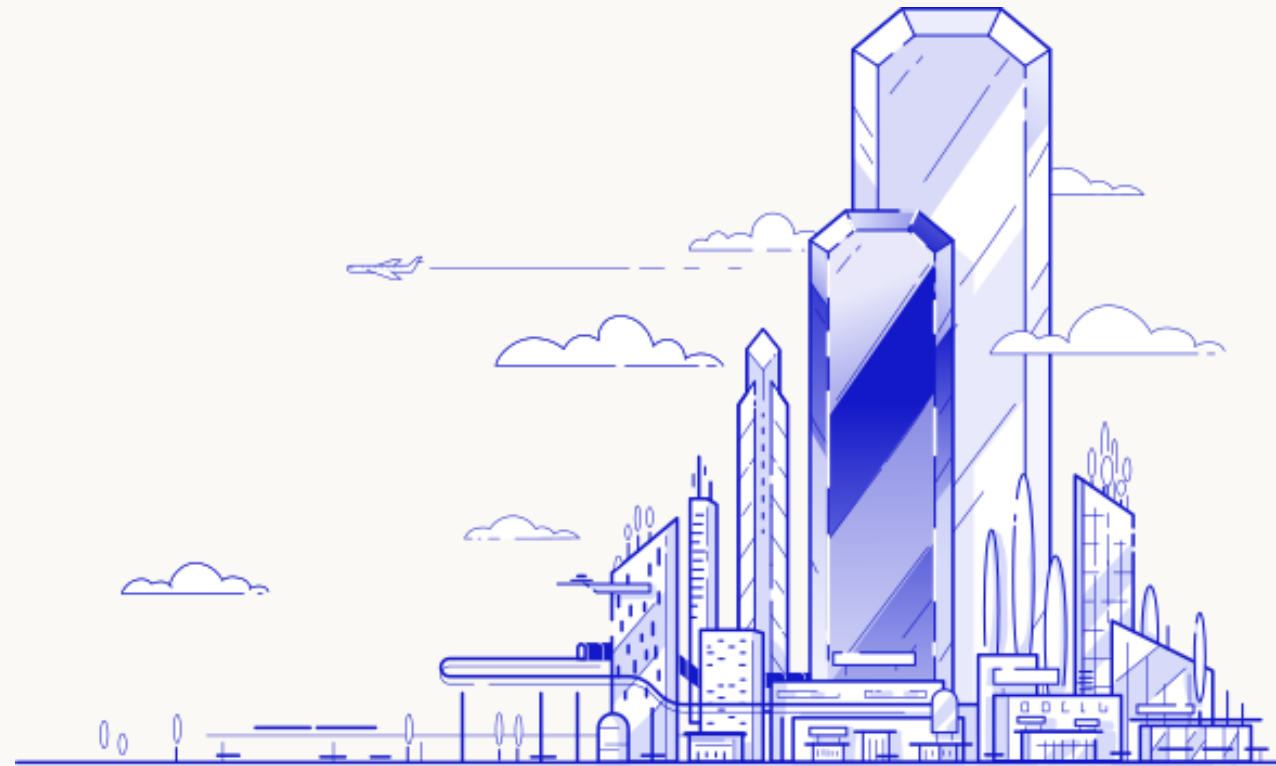
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Team lead, Project manager

- Invoices
- Additional sales with the customer
- Responsible for fully-functional team (tools & competences)
- Project management

Responsible for uninterrupted work flow

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Client

Product manager

?

Team
performance

338

Max

Min

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Team manager

?

Analyst

?

Architect

?

Development team

?

on-demand

System admin/DevOps

UI/UX designer

Testers/QA engineer

Helmes

- Junior developer
- Software Developer 1 (> 1 years of experience)
- Software Developer 2 (> 2 years of experience)
- Senior Software Developer 1 (> 3 years of experience)
- Senior Software Developer 2 (> 4 years of experience)
- Lead Developer 1 (> 4 years of experience)
- Lead Developer 2 (> 5 years of experience)
- Software Architect 1 (> 6 years of experience)
- Software Architect 2 (> 8 years of experience)
- Competence Leader (state of mind)

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A Day of a developer

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“

**Any fool can write code that
a computer can understand.
Good programmers write
code that humans can
understand.**

- Martin Fowler

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Early Morning

- Keeping up-to date with latest news
 - News portals
 - Twitter feed
 - Blogs

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Morning

- Communication
 - Meetings
 - Written code
- Stand-up meetings
- Solution analysis
 - Story
 - Impact
 - Workflow
- Estimation
- Planning
 - Sprint planning
 - Daily tasks planning



How the customer explained it



How the project leader understood it



How the engineer designed it



How the programmer wrote it



How the sales executive described it



How the project was documented



What operations installed



How the customer was billed



How the helpdesk supported it



What the customer really needed

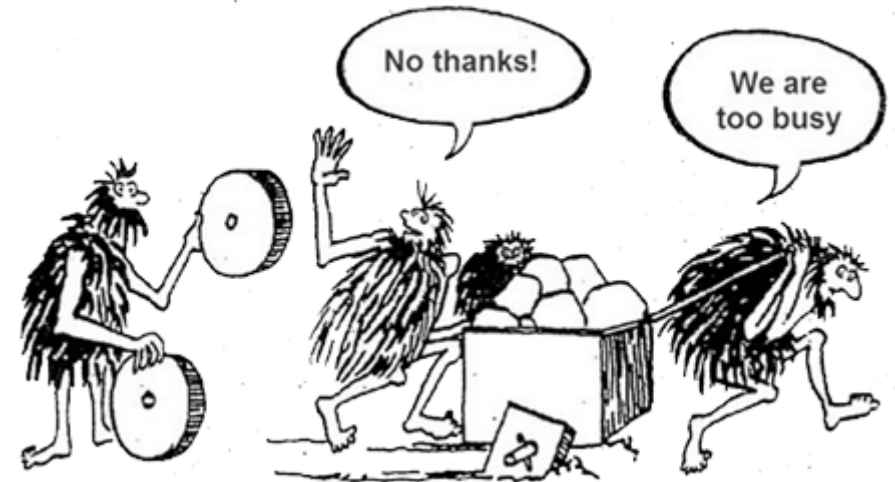
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"Writing code is one of the most difficult of human endeavors. No one has mastered it. After seven decades we are still trying to work out the basics,,

- Robert C. Martin

Mid day

- Greenfield solution realization
- Not-invented-here syndrome



Helmes

Mid day

- Brownfield solution realization



Alex Shchepetilnikov

@irqed

99 little bugs in the code
99 little bugs in the code
Take one down, patch it around
117 little bugs in the code

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MANY
TRIVIAL
TASKS

80% OF
TIME
EXPENDED

FEW VITAL
TASKS

20% OF TIME



20% OF
RESULTS

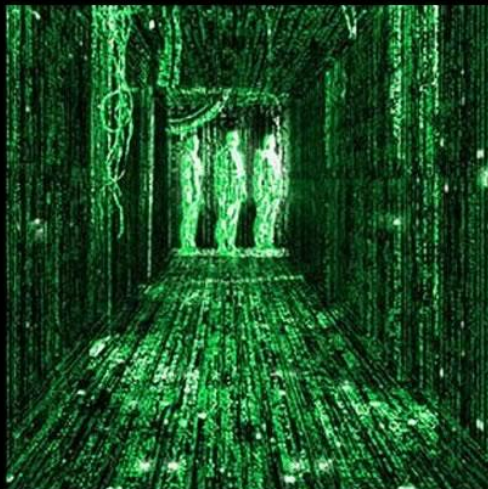
80% OF
RESULTS

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WEB DEVELOPER



What my friends think I do



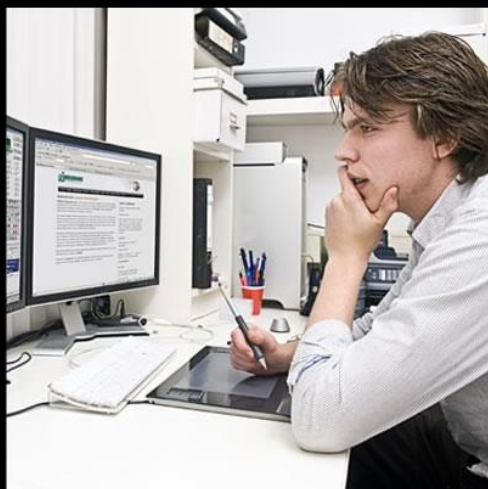
What my mom thinks I do



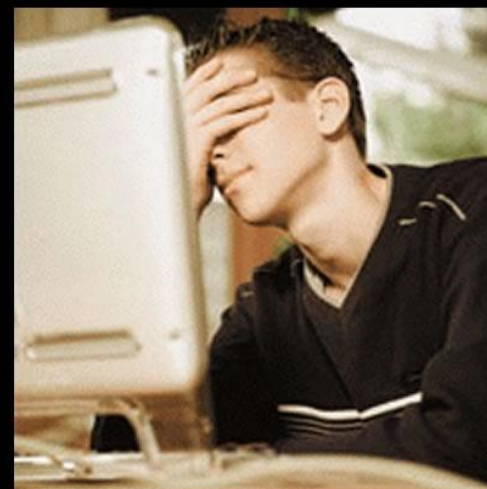
What society thinks I do



What my boss thinks I do



What I think I do



What I actually do

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After work

- Go-to guy with random Windows problems
- Go-to guy with random internet problems
- Go-to guy with random hardware questions
- Go-to guy with random mobile phone problems



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After work

- Self-study
- Pet project
- Find out how things work
- A good rest!

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HER DIARY:

Tonight, I thought my husband was acting weird. We had made plans to meet at a nice restaurant for dinner. I was shopping with my friends all day long, so I thought he was upset at the fact that I was a bit late, but he made no comment on it. Conversation wasn't flowing, so I suggested that we go somewhere quiet so we could talk. He agreed, but he didn't say much. I asked him what was wrong; He said, 'Nothing.' I asked him if it was my fault that he was upset. He said he wasn't upset, that it had nothing to do with me, and not to worry about it. On the way home, I told him that I loved him. He smiled slightly, and kept driving. I can't explain his behavior I don't know why he didn't say, 'I love you, too.' When we got home, I felt as if I had lost him completely, as if he wanted nothing to do with me anymore. He just sat there quietly, and watched TV. He continued to seem distant and absent. Finally, with silence all around us, I decided to go to bed. About 15 minutes later, he came to bed. But I still felt that he was distracted, and his thoughts were somewhere else. He fell asleep - I cried. I don't know what to do. I'm almost sure that his thoughts are with someone else. My life is a disaster.

HIS DIARY:

My code is broken, can't figure out why

Questions

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Thank You

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